On-line Data Entry System for MA Piping Plover Census Form (PIPLODES)



Photo courtesy of H. Fone

USER MANUAL





Table of Contents

On-line Data Entry System for MA Piping Plover Census Form (PIPLODES): USER MANUAL	2
Introduction to the PIPLODES	2
How to Use this Manual	3
PIPLODES: Helpful Hints	4
Types of Field Data Capture in PIPLODES	5
Types of Field Data Capture in PIPLODES (continued)	6
PIPLODES: Roles	7
Administration	8
User Authentication System	8
User Access Levels	8
Org User:	8
Org Admin:	8
Super Admin:	8
All Users: System Layout	9
All Users: How to Log In	10
All Users: The Dashboard	11
Administrators: Organization Details Page	12
Administrators: Organization Details Page (continued)	13
Administrators: How to Add New Users	14
Administrators: How to Assign a User's Access Level	15
Administrators: How to Change or View a User's Access Level	17
Administrators: How to Create a New Site	18
Administrators: How to Create a New Census Form	19
Administrators: How to Create a New Census Form (continued)	20
All Users: Census Forms	21
All Users: Entering Data into PIPL Census Form	22
All Users: Entering Data into PIPL Census Form (continued)	23

All Users:	How to Create an Exclosure Design	24
All Users:	How to Create an Exclosure Design (continued)	25
All Users:	How to Enter Nest Details	26
All Users:	How to Enter Nest Details (continued)	27
All Users:	How to Enter Egg Loss Details & Chick Loss Details	28
All Users:	Census Form: Management Research Action and Needs	29
All Users:	Census Form: Approvals and Updates	30
Administra	ators: Reports	31
All Users:	Future Functionality	31

On-line Data Entry System for MA Piping Plover Census Form (PIPLODES): USER MANUAL

Introduction to the PIPLODES

The Natural Heritage & Endangered Species Program of the Massachusetts Division of Fisheries and Wildlife has developed an on-line data entry system which will allow shorebird cooperators that monitor Piping Plovers (*Charadrius melodus*) to complete and submit state census forms through a web portal. Major benefits of this system include:

- o Increases efficiency of data submission by shorebird cooperators
- Allows monitors throughout the state to submit census form data online via a structured submission process
- Creates census form documentation for the state based on a normalized set of inputs, enabling standardized reporting and new analytics
- Improves quality of quantitative and qualitative census data submitted by monitors on the census form and imported to the state database
- Facilitates the analysis of state-wide census data

The immediate goal of the PIPLODES is to provide an on-line solution to reporting the Piping Plover census data. One of the goals of the system is to continue to grow with the needs of the Massachusetts shorebird cooperators. With that effort in mind, we encourage feedback and suggestions on how to enhance and expand the system.

How to Use this Manual

This manual is primarily about work procedures and answers the question "How do I...". The document has been divided into two sections bases on the roles of "administrators" and "all users".

Each page title begins with either: **Administrators** or **All Users** to denote which users will have access to specific functionality.

Furthermore, each instructional page follows a similar layout:

Background: This section explains what the instructions or system page relates to

<u>User Level Required</u>: This bullet states which user level has access to the functionality discussed on the page

Steps: This segment outlines input options and resulting data screens

This user manual contains short procedural information. For an explanation of each field please refer to the reference section within the PIPLODES REFERENCE GUIDE AND DATA DICTIONARY.

PIPLODES: Helpful Hints

Special Symbols in the System and the Manual:

Question Mark Symbol. This symbol is used throughout the system reminding users there is additional information hidden under the symbol which gives further information about a specific field.

Exclamation Symbol. This symbol is used to remind users to review the list of causes of egg/chick loss.

Don't forget reminders. This symbol is used within the User Manual to give helpful hints on what to remember.

Red outlined boxes. If the user tries to "save" data without completing a required field, the system will remind the user if a required field has been forgotten by outlining the field in red. Simply fill in the required data and hit "save" for the data to be captured.

The Plus Symbol. This symbol allows the user to add a record. Anytime this symbol is displayed, the user may click on the symbol to add information such as: exclosure design information, a new nest for the site, egg losses, chick losses.

The Pencil Symbol. This symbol means the user can click on an existing record and make edits. Once a record such as an exclosure type, nest, egg or chick loss is recorded, the user may click on the pencil to edit the data.

The "X" symbol. This symbol allows the user to delete a particular record that has already been created. The user clicks on this symbol, the system will ask the user to confirm that they want to delete that particular piece of information as a precaution. For example a pop-up box will appear asking "Are you sure you want delete this nest?". The user must select "Ok" for the deletion to occur or select "Cancel" to cancel the action.

The Magnifying Glass Symbol. Clicking on this image will allow the user to see the detail that was entered under the Nest Details, Egg Loss or Chick Loss screens.

The Map Symbol. This symbol allows you to click on the image and see the location of the nest per the nest coordinates that have been entered. Please make sure to confirm your nest location by clicking on this link to ensure the GPS coordinates were entered correctly.

Types of Field Data Capture in PIPLODES

There are several different types of field data capture within the system. Below is a list of the field types and the functionality behind them.

Multiple Option Boxes:

Field name: ...

Text box followed by ... This is a multi-functional field. The user should choose from the drop down list by clicking on the "...". If the selection the user is looking for is not in the drop down list, then type in to the text box directly.

Edit Buttons: Edit

In order to enter any data in the system, the Edit button must be selected before data will be accepted.

Save Buttons: Save

The "Save" function buttons are to save entered data and are located within pop-up boxes or on upper-right hand corner of the page.

New Buttons: New

The "New" function buttons are selected to create a new record and are located on the top right-hand side of the page or at the bottom of the list of items.

Add Buttons: Add

The "Add" function buttons are used to create new "nest" records to the site census report.

Types of Field Data Capture in PIPLODES (continued)

Select/Check Boxes:

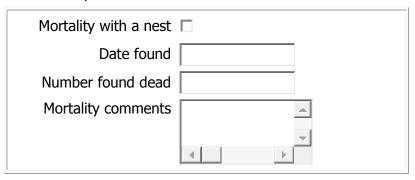
Field Name

Select Box: This box simply requires a "click" in the box which will add a "check mark"

Example: Found after hatching

Check Box, Then Edit:

For some select/check boxes, once a "check" appears in the box, then the subsequent boxes can be edited such as: Adult mortality



Open Text Boxes:

Comments on fledged chicks

Date Fields:

There are fields that required a date to be populated in the system. Since many times, an exact date cannot be provided, a date range is offered. If an exact date is known, simply enter that date in the first date field. If only a range is known, then enter both dates in the corresponding fields.



PIPLODES: Roles

For the purposes of PIPLODES, there are two basic roles for each organization. Depending on the organization, there can be multiple people listed under each role.

The Organization Administrator

The Organization Administrator, or Org Admin, is responsible for managing new sites and users for a specific organization. This role also includes the final approval for the PIPL Census Form and releases the data to the State at the end of the season.

The Organization User

The Organization User, or Org User, is responsible for completing the site-specific census forms and submitting for internal review.

Administration

To ensure a level of database security and to avoid unintended or unauthorized users, there are several safe guards that have been established within PIPLODES.

User Authentication System

To ensure data security, each user will be issued a username and password which will be required for every system login. It is strongly advised that all users change their password upon initial entry into the system. When users are originally established, a security level will be established dependent on which access is required for that individual. There are three user levels built into the system. Each level will hold an increasing level of access to the system.

User Access Levels Org User:

This level will be utilized by most field monitors and allows the user to:

- Enter and edit all census form fields available for the org(s) and year(s)
- Edit person record (not email address, which is used for logging on; users must request an email address change from the Database Administrator)
- Switch "current" organization for which they are reporting to another (if assigned to more than one)
- o Run queries and reports
- Approve a census form for internal review
- Set the "map ready" flag

Org Admin:

Each organization will designate an Org Admin who will be responsible for:

- All of the above, plus...
- Editing the details of organization
- Creating and editing sites for organization
- Creating and editing people (users) for organization
- Setting user permissions for people in organization
- Approving each site census form for state review

Super Admin:

This level has been created for the database manager and architect

- All of the above access, for any organization, plus...
- Create new organizations
- Review completed census forms from all organizations

All Users: System Layout

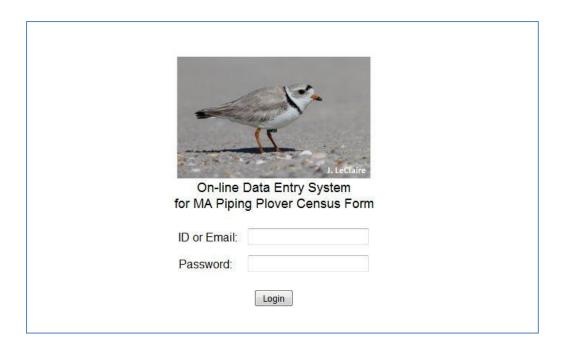
The user interface or menu bar is located on the left-hand side of the screen and contains eight selectable commands and options which allows the user to access different aspects of the system. Dependent on the user's access level, access to some options may be limited.



Menu Options	Access Level Required
Dashboard	All levels
Census Forms	All levels
Reports	All levels
Organizations	Org Admin and Super Admin
Sites	Org Admin and Super Admin
People	Org Admin and Super Admin
Admin	Org Admin and Super Admin
Query Tool	Super Admin

All Users: How to Log In

Prior to user access being obtained, an ID and password will be generated by each organization's PIPLODES administrator. After gaining access, the user will be able to change their password.



All Users: The Dashboard

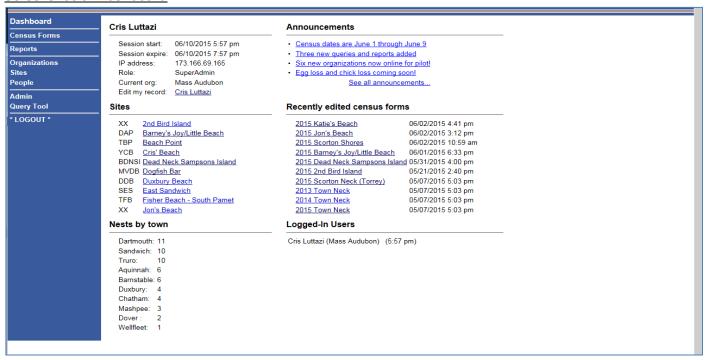
<u>Background</u>: The Dashboard Screen is the first screen the user will see after logging onto the system and is split into six sections.

User Level Required: All User Levels

ritage Illouts
ollouts
orms:
ently edited
on the system rganization
ַ

^{*}Sessions will expire after two hours of no activity

Screenshot of Dashboard:



[^] Allows user to review Person Details page, change password and view permission levels

Administrators: Organization Details Page

<u>Background</u>: This page reviews all an organization's detail information as listed below in the layout.

<u>User Level Required</u>: Org Admin or Super Admin

<u>Layout</u>: This page is broken into four sections:

1. Organization Details: organization contact details

2. **Sites**: a list of sites the organization represents

3. **Staff/volunteers**: a list of authorized users for the organization

4. **Permissions**: the access level for each user

The Org Admin user will be able to update their specific organization's contact details. This is accomplished by selecting the "Edit" button in the upper right hand corner of the screen.

Organization Details

Contact information

Sites

 List of site names, town, organization responsible and site comments

Staff/volunteers

List of staff that have been given permission to access the system,
 what town they are associated with, organization and comments

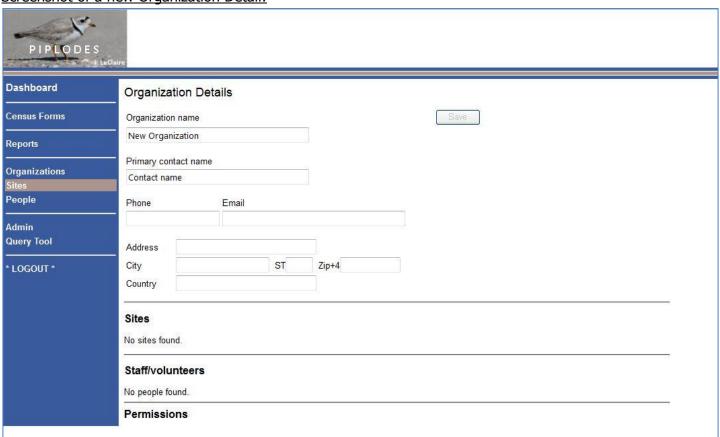
Permissions

List of users and access levels by year

Administrators: Organization Details Page (continued)

<u>Steps</u>: Click on the Organizations button on the left panel to view the list of organizations. Click the "New" button at the bottom of the page to open the Organization Details page and complete the form provided.

Screenshot of a new Organization Detail:

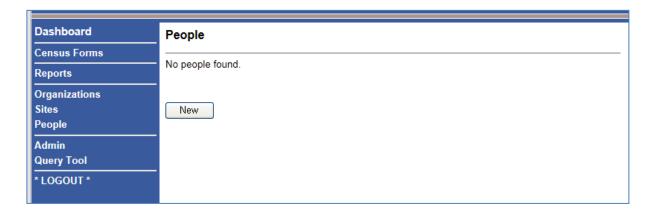


Administrators: How to Add New Users

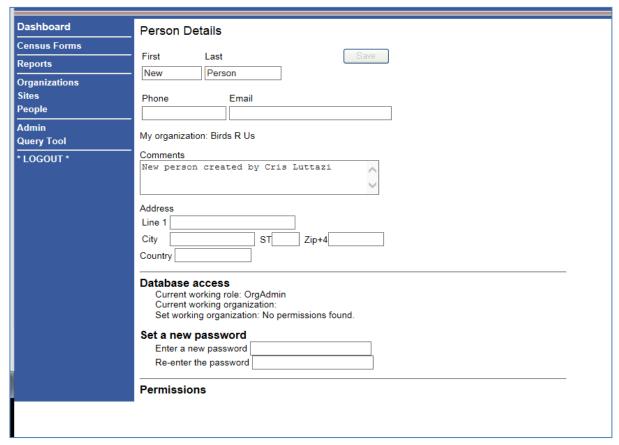
<u>Background</u>: Before a user can access the system, the person must be added under a specific organization.

<u>User Level Required</u>: Org Admin or Super Admin

<u>Steps</u>: Click on the People button in the Menu Bar. The screen will display if there are any users currently registered under the organization. If there are no current users, then the screen will look the image below. The next step is to click the "New" button to add an individual.



<u>Continued Steps</u>: The administrator then completes the Person Details form and saves.



Administrators: How to Assign a User's Access Level

<u>Background</u>: After a user is established in the system, the Administration can then set the users access level.

<u>User Level Required</u>: Org Admin or Super Admin

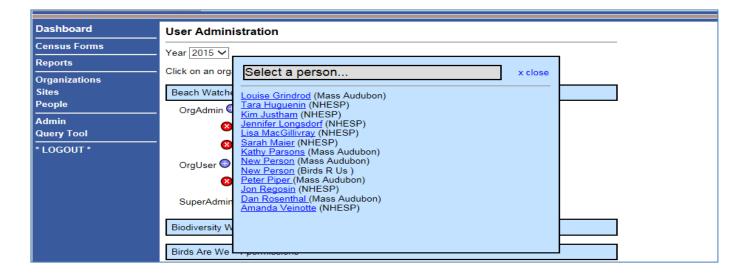
<u>Steps</u>: Click on the Admin tool in the Menu Bar. The User Administration page will then display your organization and different access levels within the organization. Any users already established will appear under the Access Level to which the person has been assigned.

Screenshot of the User Administration Page:

Dashboard	User Administration
Census Forms	Year 2015 ✓
Reports	Click on an organization to expand the list
Organizations Sites	Beach Watchers - 0 permissions
People	OrgAdmin 🛈
Admin Query Tool	⊗ Tom McGonegal - Developer!
* LOGOUT *	■ Johnny Wellfleet - New person created by Tom McGonegal
	OrgUser 💿
	S Cris Luttazi - MAS Coastal Waterbird Project
	SuperAdmin

<u>Continued Steps</u>: If a user has not been assigned an Access Level, then click on the level that you wish to grant access and all the organization's currently registered users will appear. Simply click the person's name you wish to grant access to and the name will then appear under that Access Level and the pop-up box will automatically close. Do this for each employee that you would like to assign an access level for.

Selecting a Person:



Administrators: How to Change or View a User's Access Level

<u>Background</u>: The User Admin page allows one to view the status of all the personnel in an organization that have been given access to the system and shows each user's access level.

<u>User Level Required</u>: Org Admin and Super Admin

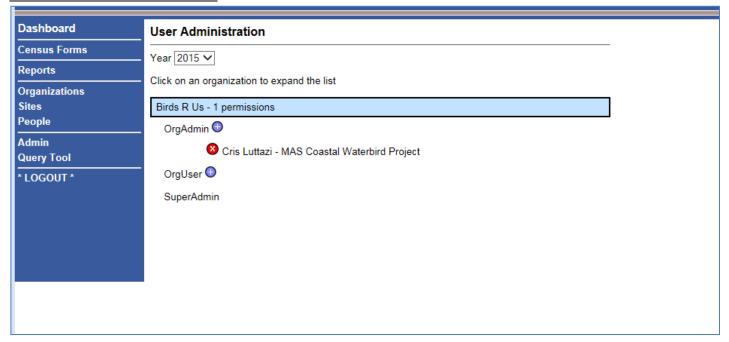
<u>Steps</u>: Click on the Organization name to view all users with access to the system.

To remove an employee from an access level, click on the **8** next to their name

To add an employee to an access level, select the User Level the admin would like to assign to the employee, a list of employees will appear to choose from, click on the appropriate employee.

Note that in order to change an employee's user status, the employee first needs to be removed from their existing status and then added into the new status.

<u>User Administration Screenshot:</u>



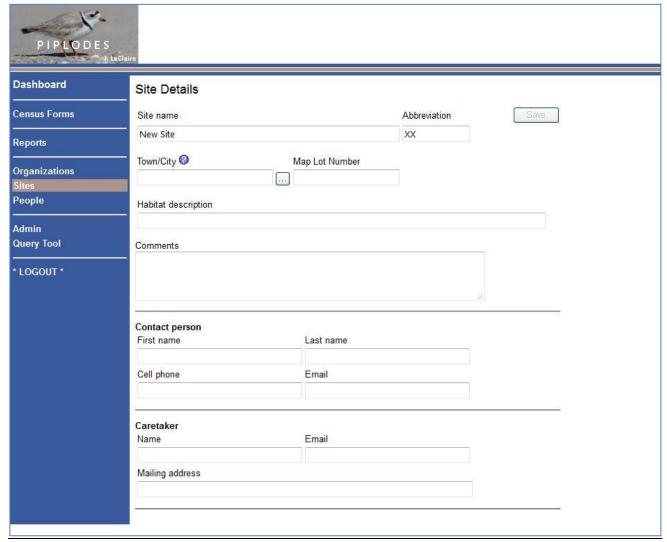
Administrators: How to Create a New Site

<u>Background</u>: Before a census form can be created, the site must be listed under the correct organization. This step allows the Organization Administrator to manage and maintain the sites for their specific organization.

<u>User Level Required</u>: Org Admin or Super Admin

<u>Steps</u>: Click on the Sites button on the left panel to view the list of Sites. Click the "New" button at the bottom of the page to open the Sites Details page and complete the form provided. There are two different contact details which may be captured: The Contact Person and the Caretaker.

Screenshot of Site Details:



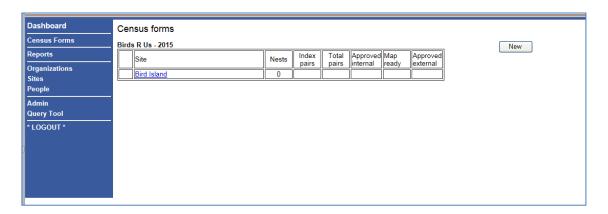
To delete a site from the "Site List" for an organization, simply click on the "Sites" tab to view the list for your organization and click on the symbol to the right of the site name. Note: A Site cannot be deleted if it has a Census form associated.

Administrators: How to Create a New Census Form

Background: Before a census form is completed, the form must be created. This ensures that that multiple forms are not created for the same site in the same year.

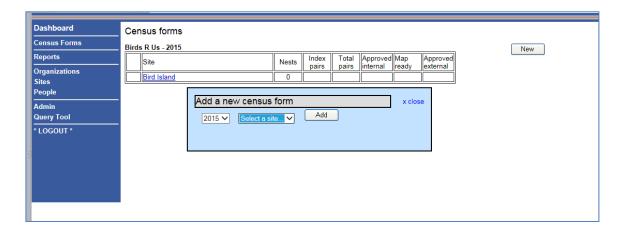
User Level Required: Org Admin or Super Admin

Steps: Click on "Census Forms" in the left panel. Then click the "New" button in the upper right-hand corner.



A pop-up box will appear which will have two drop down boxes. The first will list the year and the second box will list all the sites that have been created for your organization.

Continued Steps: Select the Year and Site you would like to create a census form for then click on "Add".

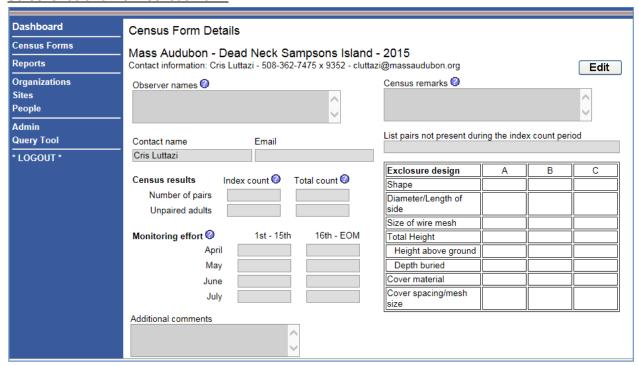


If a site does not appear on the site drop down list that means the site has not been created in the system.

If you receive an error message, that means a census form has already been created for that particular year and site. Please review the list again and simply click on the correct site name to access the census form.

Administrators: How to Create a New Census Form (continued)

Screenshot of a new Census Form:



Note: The Contact Information on the top of the page will reflect the "Organization" contact details. In this case the organization is "Mass Audubon", the Site is "Dead Neck Sampsons Island" and the organization contact information is below.

Remember the question mark symbol. This system tells the user that a "hover tip" is available. Simply move your cursor over the symbol and a helpful hint will be display with further information on that particular field.

All Users: Census Forms

<u>Background</u>: The Census Forms Screen lists all census forms that have been created for each year, alphabetically by site. For each site there is a running total of nests that have been entered, as well as, index pairs and total pairs. In addition, there are three status boxes that allow the viewer to see the current status of census form. All data that appears in the six boxes is populated by fields on the site-specific census form. This allows the Org Administrator to have an overview of each site and see what has been entered. Also, if no data has been entered the user has the option to delete the census form.

Screen shot of Census Form page:

nsus forms							
Site	Nests	Index	Total	Approved	Мар	Approved	Delete 🔕
2nd Bird Island	6	pairs	pairs 13	internal	ready	external	
Acapesket Beach	0						8
Acoaxet	0						8

<u>Check Boxes</u>: There are three check boxes that appear for each site that appear on the Census Form Overview page. This data is captured at the end of each individual Site Census Form page and displayed here. This allows the Org Admin to review the form prior to submittal to the State. See

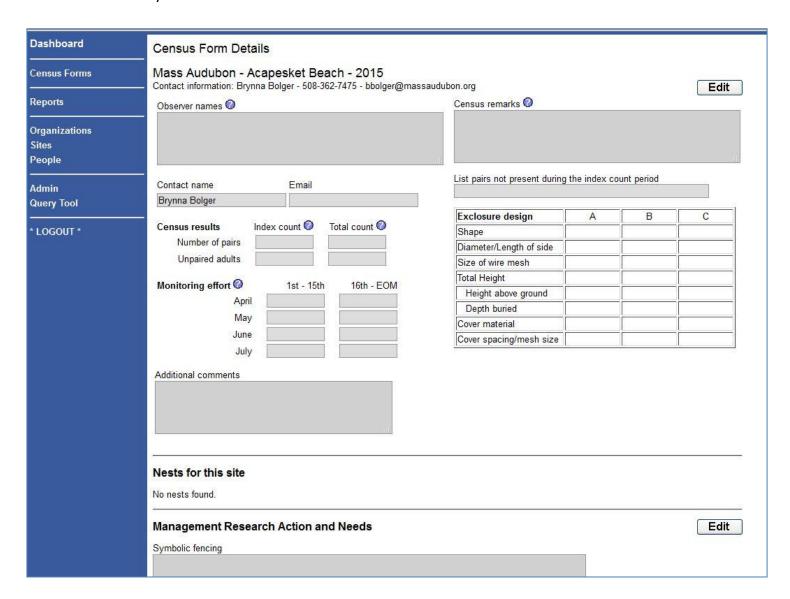
All Users: Census Form: Approvals and Updates for additional information.

All Users: Entering Data into PIPL Census Form

<u>Background</u>: A new census form will allow you to see some of the fields available for capture however none are accessible until the user selects the <u>Edit</u> button.

<u>User Level Required</u>: All User Levels

<u>Steps</u>: The new census form has an "Edit" button in the upper right-hand corner. This button needs to be selected so data may be entered onto the form.



All Users: Entering Data into PIPL Census Form (continued)

User Level Required: All User Levels

Results: After the clicking on the "Edit" button, a (plus) button will appear in the Exclosure Design section and an Add button will appear under the "Nests for this Site" section at the bottom of the screen.

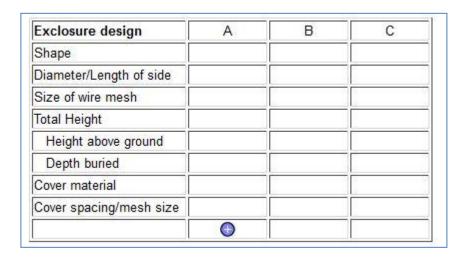
Dashboard	Census Form Details						
Census Forms	Mass Audubon - Acapesket Bei Contact information: Brynna Bolger - 508-3	ach - 2015 62-7475 - bbolger@massaudubon.org					Sav
Reports	Observer names ②	,	Census remarks 2				
Organizations Sites People							
Admin	Contact name	Email	List pairs not present during t	the index co	unt period		
Query Tool	Brynna Bolger						
		- 0	Exclosure design	Α	В	С	
LOGOUT *		Total count 🕗	Shape				
	Number of pairs		Diameter/Length of side				
	Unpaired adults		Size of wire mesh				
			Total Height				
	Monitoring effort 1st - 15th	16th - EOM	Height above ground				
	April		Depth buried				
	May		Cover material				
	June		Cover spacing/mesh size				
	July			0			
	Additional comments						
	Nests for this site						
	INCOLO IOI UIIS SILE						
	No nests found.						
	ATTENNING PROPERTY OF THE PROP						
	Management Research Action ar	d Needs					Say
	6.2						
	Symbolic fencing						

All Users: How to Create an Exclosure Design

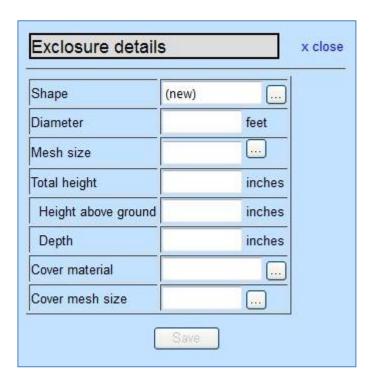
<u>Background</u>: Many different exclosure designs are used throughout Massachusetts so the system allows the user to create three distinct types of exclosures for a site. After the Exclosure Design is created, the user would reference if Design A, B or C was used for a particular nest when populating the Nests for this Site.

<u>User Level Required</u>: All User Levels

Steps: Click on the () (plus) symbol at the bottom of the Exclosure Box.

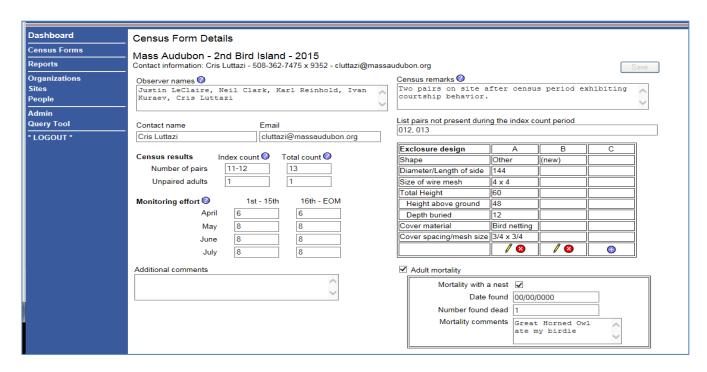


<u>Steps Continued</u>: A Pop-Up box will be displayed on the screen and allow the user to select the dimensions of the exclosure. Once the form is completed, the user clicks "Save" at the bottom of the pop up window (or close without saving by clicking "close" in the upper right corner of the window).



All Users: How to Create an Exclosure Design (continued)

Steps Continued: Once the form is completed, the user clicks "Save" in the upper right-hand corner.



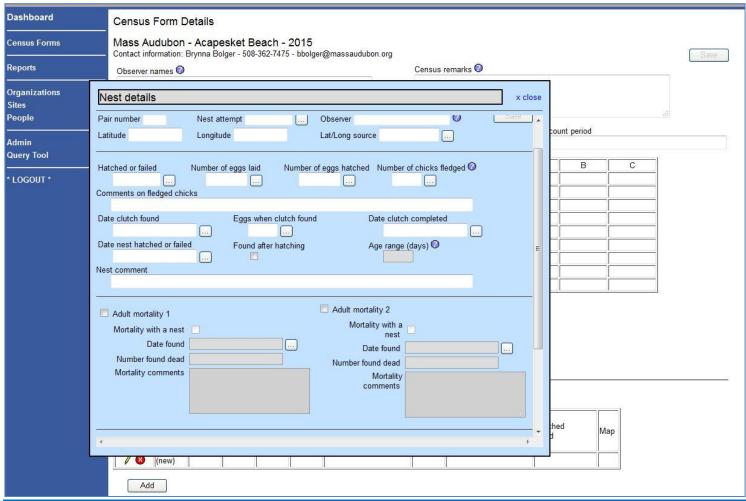
The Exclosure Box will now display the credentials of the Exclosure Design A. If there are multiple exclosure designs for one site, then the user may continue completing additional design forms.

All Users: How to Enter Nest Details

<u>Background</u>: After the user has selected the <u>Add</u> button under the "Nests for this Site" section at the bottom of the screen a Nest Details pop-up screen will appear. This page will allow the user to enter all the details of the nest.

User Level Required: All User Levels

<u>Steps</u>: Enter applicable data. Note that this information be can entered as the season progresses so nest data can be entered the day the nest is discovered and then later, additional data can be entered.



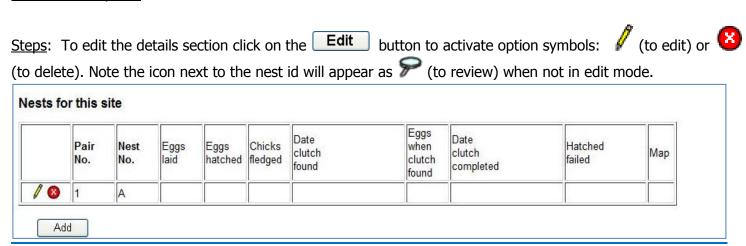


- Hover over the icon to learn about a particular field
- For continuation nests, enter the nest number followed by "cont." For example: 2A cont.
- GPS coordinates: Captured in decimal format (don't forget the "-" sign!)
- Exclosure Types: The drop down options refer to what was established in the Exclosure Design section under the Site Details screen

All Users: How to Enter Nest Details (continued)

<u>Background</u>: After the user has entered the Nest Details and closes the pop-up box, the new nest will be captured in the Nest for this Site section. This detail section can be edited as additional information becomes available (such as hatching success or nest loss).

User Level Required: All User Levels



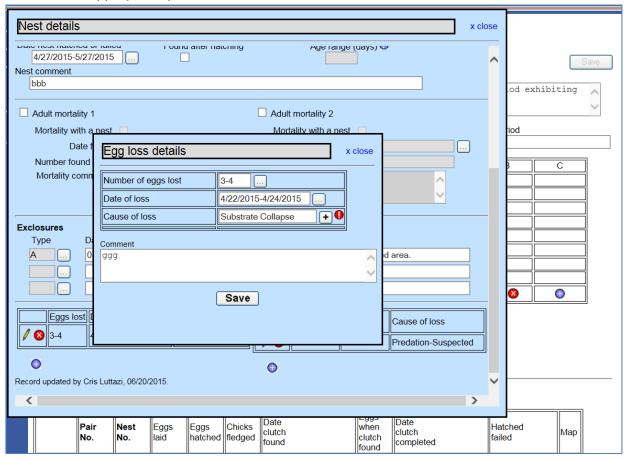
All Users: How to Enter Egg Loss Details & Chick Loss Details

<u>Background</u>: After nest data has been entered into the "Nest Details" page, then Egg Loss or Chick Losses may be entered. The system will default to "No Egg Loss" and "No Chick Loss" until the user enters data into either of these screens.

User Level Required: All User Levels

<u>Steps</u>: Click on the ① located at the bottom of the Nest Details page for a particular nest and complete the popup window. Be sure to click on the exclamation point ① to read the definitions of egg loss/chick loss causes. The + sign next to the "Cause of loss" field allows the user to select more than one option.

If the loss is due to a predator, then a new drop down box appears titled "Specific Cause" which allows the user to select the appropriate predator.

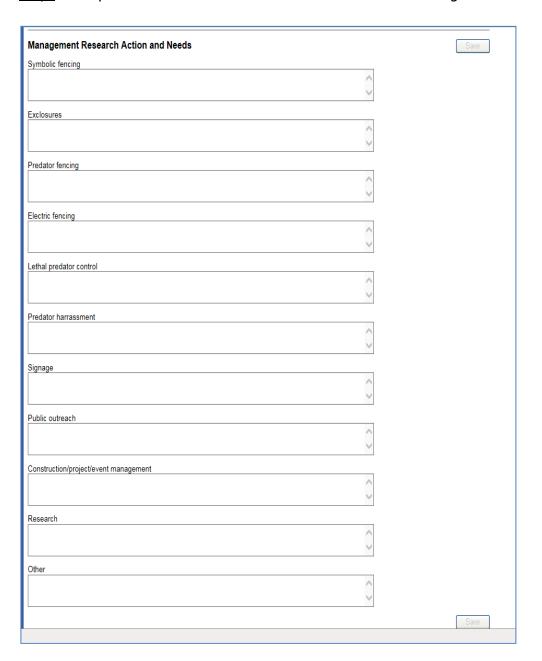


All Users: Census Form: Management Research Action and Needs

<u>Background</u>: This section allows the site monitor to report on specific issues regarding fence maintenance, predators, signage utilized, public interactions and other pertinent information. This section is the historical record for the site and used for many years to come so it is important to capture all relevant facts that the State and future monitors should know when working at the site.

<u>User Level Required</u>: All User Levels

Steps: Complete all relevant boxes and select "Save" after entering information.



All Users: Census Form: Approvals and Updates

<u>Background</u>: To ensure that the proper review has occurred, each site census form has an approval section on the bottom of the census page. This section then will populate the checkmarks found on the Census Form tab (see below images).

Checklist	Authorization	Definition
Approved for internal review	Org User	Checked when form has been completed for the monitoring season and is ready for internal review before being submitted to the State.
Map ready	Org User or Org Admin	Checked when site map incorporating all PIPL nests is completed. Map creation occurs outside of PIPLODES.
Approved for external review	Org Admin	Internal review has been completed and authorization is given to release data to the State.

Steps: Click on appropriate boxes

Approvals and updates	
Approved for internal review	
☐ Map ready	
☐ Approved for external review	
Census record created by Tom McGonegal, 05/07/2015. Census record updated by Tom McGonegal, 05/07/2015.	

As users check off Approvals and updates the Census forms home page grid is updated with green check marks.

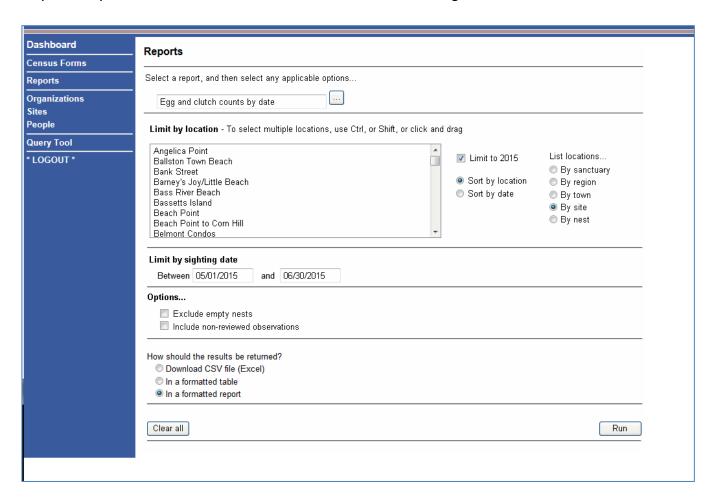
nsus forms : Audubon - 2015								
Site	Nests	Index pairs	Total pairs	Approved internal	Map ready	Approved external	Delete 🕗	
2nd Bird Island	6		13	1				
Acapesket Beach	0						8	
Acoaxet	0						8	

Administrators: Reports

<u>Background</u>: This section allows the user access to reports by site, town or by region ranging from how many nests to how many successful fledges.

<u>User Level Required</u>: **Currently under development**

Steps: Complete all relevant boxes and select "Save" after entering information.



All Users: Future Functionality

This manual will continue to be updated as new functionality is released in the system.